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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/971,972	10/05/2001	Raj Subbu	H26-073 US	5708

21706 7590 11/17/2003

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EXAMINER	
HIRL, JOSEPH P	

ART UNIT	PAPER NUMBER
2121	

DATE MAILED: 11/17/2003

3

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/971,972	SUBBU ET AL.	
	Examiner	Art Unit	
	Joseph P. Hirl	2121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 October 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *2*.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

1. Claims 1-8 are pending in this application.

2. The claims and only the claims form the metes and bounds of the invention. "Office personnel are to give the claims their broadest reasonable interpretation in light of the supporting disclosure. *In re Morris,* 127 F.3d 1048, 1054-55, 44USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim are not read into the claim. *In re Prater*, 415 F.2d, 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969)" (MPEP p 2100-8, c 2, l 45-48; p 2100-9, c 1, l 1-4). The Examiner has full latitude to interpret each claim in the broadest reasonable sense. Examiner will reference prior art using terminology familiar to one of ordinary skill in the art. Such an approach is broad in concept and can be either explicit or implicit in meaning.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Seredynski et al (IEEE 0-7803-3104-4 referred to as **Seredynski**).

Claim 1

Seredynski anticipates providing an optimization algorithm (**Seredynski**, pg 432, c 2, l 16-21); creating a plurality of coevolutionary agents implementing the optimization algorithm, each coevolutionary Agent having a primary search variable and at least one secondary search variable, the plurality of coevolutionary agents distributed across the at least two nodes in the network architecture and the primary search variable of each coevolutionary agent corresponding to one of the at least one secondary search variables of the remaining coevolutionary agents (**Seredynski**, pg 432, c 2, l 16-21; pg 435, c 1, l 42-43; pg 433, c 2, l 14-25); conducting concurrent local searches using each coevolutionary agent at the corresponding one of the nodes where the coevolutionary agent is located, based on the primary search variable of the coevolutionary agent for producing local solutions using information available from the corresponding one of the local databases (**Seredynski**, pg 432, c 2, l 16-21; pg 435, c 1, l 42-43; pg 433, c 2, l 14-25); updating the primary search variable of each coevolutionary agent based on the corresponding one of the local solutions (**Seredynski**, pg 434, c 1, l 1-19; pg 433, c 2, l 26-30); providing a plurality of mobile agents at the at least two nodes (**Seredynski**, pg 434, c 1, l 1-19; pg 433, c 2, l 26-30); using the plurality of mobile agents to transport the local solutions produced at each node having a coevolutionary agent to all of the other nodes (**Seredynski**, pg 434, c 2, l 5-12); and updating the at least one secondary search variable of each coevolutionary agent using local solutions transported by the mobile agents using a coordination scheme (**Seredynski**, pg 434, c 1, l 7-10).

Claims 2, 6

Seredynski anticipates repeating conducting concurrent searches, updating the primary search variable, using the mobile agents to transport local solutions and updating the at least one secondary search variable to produce an optimized solution (**Seredynski**, pg 434, c 1, l 18-19).

Claims 3, 7

Seredynski anticipates accessing the optimized solution at any one of the at least one nodes (**Seredynski**, pg 434, c 1, l 1-30).

Claims 4, 8

Seredynski anticipates the coordination scheme is selected from the group consisting of local, joint, pool, elite local, elite joint and elite pool schemes (**Seredynski**, pg 432, c 2, l 3-10).

Claim 5

Seredynski anticipates providing an optimization algorithm relating the multiple interdependent variables (**Seredynski**, pg 432, c 2, l 3-16; pg 432, c 2, l 16-21); creating a plurality of coevolutionary agents implementing the optimization algorithm, each coevolutionary agent setting one of the multiple interdependent variables as a primary search variable, the rest of the interdependent variables being defined as secondary search variables for the coevolutionary agent (**Seredynski**, pg 432, c 2, l 16-21; pg 435, c 1, l 42-43; pg 433, c 2, l 14-25); distributing the plurality of coevolutionary agents across the plurality of nodes (**Seredynski**, pg 435, c 1, l 42-43); conducting concurrent local searches using each coevolutionary agent at the corresponding one of

the nodes where the coevolutionary agent is located, based on the primary search variable of the coevolutionary agent for producing local solutions from information available from the corresponding one of the local databases (**Seredynski**, pg 432, c 2, l 16-21; pg 435, c 1, l 42-43; pg 433, c 2, l 14-25); updating the primary search variable of each coevolutionary agent based on the corresponding one of the local solutions (**Seredynski**, pg 434, c 1, l 1-19; pg 433, c 2, l 26-30); providing a plurality of mobile agents in the network-distributed environment (**Seredynski**, pg 434, c 1, l 1-19; pg 433, c 2, l 26-30); using the plurality of mobile agents to transport the local solutions produced at each node having a coevolutionary agent to all of the other nodes (**Seredynski**, pg 434, c 2, l 5-12); and updating the at least one secondary search variable of each coevolutionary agent using local solutions transported by the mobile agents using a coordination scheme (**Seredynski**, pg 434, c 1, l 7-10).

Conclusion

5. The prior art of record and not relied upon is considered pertinent to applicant's disclosure.

Hocaoglu et al, USP 6,249,714

Kauffman, US Pub 2001/0032029

Carter et al, US Pub 2003/0051026

6. Claims 1-8 are rejected.

Correspondence Information

Any inquiry concerning this information or related to the subject disclosure should be directed to the Examiner, Joseph P. Hirl, whose telephone number is (703) 305-1668. The Examiner can be reached on Monday – Thursday from 6:00 a.m. to 4:30 p.m.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Anil Khatri can be reached at (703) 305-0282.

Any response to this office action should be mailed to:

Commissioner of Patents and Trademarks,

Washington, D. C. 20231;

or faxed to:

(703) 746-7239 (for formal communications intended for entry);

or faxed to:

(703) 746-7290 (for informal or draft communications with notation of "Proposed" or "Draft" for the desk of the Examiner).

Hand-delivered responses should be brought to:

Receptionist, Crystal Park II

2121 Crystal Drive,

Arlington, Virginia.

ANIL KHATRI
SUPERVISORY PATENT EXAMINER

Joseph P. Hirl

November 6, 2003